

October 5, 2009

Peter DeVries, Council Chair
PO Box 42525
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Re: WSEC Amendments

I'll start off with what I thought may be typos in the proposal.
WAC 51-11-0303 Mechanical Ventilation. Section refers to Section M1508.7 in the IRC, but there is no M1508 or M1508.7 in the IRC. Section M1507 in the 2009 IRC does reference Mechanical Ventilation.

Section 503.9 Air Handling Ducts. Exception 5. The 2nd line, for human occupation such as insulation crawl spaces... I think the insulation should be insulated.

Table 5-1 for vertical glazing U-Factor, in climate zone 1, deleted Group R1,2,3 & 4 but in climate zone 2 it is not shown as deleted.

Table 5-1-- 2' Depth: Walls
Slab the U-Value and F-Value were both changed.

Then the next section down, 3.5' Depth: Walls
Slab the U-Value and the F-Value remain
the same, but they are not falling between the valuations for 2' Depth and the 7' Depth.
Shouldn't they be changed also.

Table 5-11 Insulation of Ducts in the table, Roman Numerals I & II are used but in the notes below, you use 1 & 2.

Section 602.1 Roof-Ceiling: Table 6-2 was deleted, but it has not been deleted from this section.

Now comes the fun part.

Section 101.1 By labeling the Energy Code as the Single-Family Residential Energy Code, you are going to confuse a lot of people. If they have a duplex or are in a townhouse, the building departments will have to explain that it is intended to cover all dwellings allowed by the International Residential Code. May be re-labeling the Energy Code as "The Washington State International Residential Code Dwelling Energy Code"???

I know that in Section 103 Scope: the code notes: Spaces within the scope of Section R101.2 of the IRC shall comply with Chapters 1 through 10 of this code. The building departments will still get a lot of questions about this.

Section 101.3.2.6 Mechanical Systems: The requirement to have existing duct systems tested for duct leakage should have Exception 1 allowed for Section 503.10.3 Sealing: Exception 1 . Duct tightness is not required if the air handler and all ducts are located within (the) conditioned space.

Section 105.4 Certificate: Is there going to be a standard design for the Certificate? Where can we get that standard design? Will the general contractor be able to fill out the Certificate? RCW 18.08.140.5 does not require an individual designing a residential building with up to four dwelling units to be a registered design professional. The majority of house plans most building departments get are gotten out of plan books, the internet and designed by the contractor.

Still with Section 105.4 Certificate: Currently most building departments should be requiring the mechanical contractor to place all of the information on the HVAC equipment near or on the air handler or boiler. This may be a better location than within three feet of the service panel.

Section 401.1 General: In addition, the design shall comply with the additional energy efficiency requirements of Chapter 9. What happens if I'm using equipment that complies with chapter 9 to get the required energy analysis. Am I good at this point or do I have to get another 2 energy credit point from Chapter. ????

Section 502.1.4.8 Slab-On-Grade: The last sentence allows a 2-inch by 2-inch (maximum) nailer may be placed at the finished floor surface. I would ask that the 2-inch by 2-inch (maximum) nailer be of pressure treated material because it is not a minimum of 6-inches from the dirt. Sill plates are required to be pressure treated, why not this piece of wood?

Section 502.2.1 UA Calculations: Last sentence, When showing compliance with Table 9-1 using options 3a, 3b or 3c, the proposed design shall be less than the target UA by the fraction noted in the Table. Table 9-1 options 3a, 3b and 3c show two ways to comply. So if I've complied using the first way, I also have to finish up the calculations and beat the target UA by the percentage required by the second method of complying.

Why have the first way to comply??

Section 502.4.5 Building Air Leakage Testing: If the blower door test results are supposed to be recorded on the Certificate from Section 105.4, require that a copy be sent to the local building department. Don't require the building department to do anything other than accept the test result being submitted.

Section 503.2.2 Space Heating and Space Cooling Sizing Limits: This section kicks us to the IRC Section M1401.3. IRC M1401.3 Sizing. Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies.

This is going to be an entirely new business. The contractors have a hard time trying to get even a minimum heat loss together. Now requiring full room by room heat loss and sizing the duct work and balancing the system will provide a better system, but it will increase the costs by a significant amount. I couldn't begin to estimate it.

Table 6-1 Exception 4. Below grade walls shall be insulated on the exterior to a minimum level of R-5 or... Why are we going backwards. In Table 6-2, I could understand going from R-12 to R-10, but why go from R-10 to R-5???? Why go backwards????

Section 901 Additional Residential Energy Efficiency Requirements.

In chapters 4, 5 & 6 the first sections require meeting the section and also with the additional energy efficiency requirements of Chapter 9. Then in 901 only Chapter 5 is noted. Why aren't 4 & 6 listed??

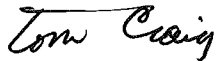
Chapter 9 5b High Efficiency Water Heating An electric heat pump water heater with a minimum EF of 2.0. If the electric heat pump is pulling air from the residence, doesn't it remove some of the heat and then pass the cooler air back into the residence? This is good in the summer, but cooling the house in the winter is not a good idea. That cooling needs to be taken into the Manual J calculations.

Table 9 exception 2. This is my wife's pet peeve. If the shower head is limited to 1.75 gallons per minute, it doesn't allow hair to be rinsed after shampooing. So additional time is spent with the shower running to rinse the hair. Yep, I can see the savings there.

Chapter 12. Energy Metering

Ok, we've got metering and a method of collecting the information. Is there going to be any use of the information mandated. Does a building owner or tenant have to change out equipment that is not as energy efficient as newer equipment?

Section 1314.6 Vestibules The energy code is placing design criteria on design professionals??

A handwritten signature in black ink that reads "Tom Craig". The signature is written in a cursive, slightly slanted style.

Tom Craig, City of Spokane Building Department, Plan Review
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